

Again, the stamens were entirely aborted, but the carpels were present, and then these were raised on a stipe, simulating the Capparidaceae. These carpels were short-clavate, divided nearly to the base, but not crested, two-celled, and infertile. Or the pistil was represented by a pair of opposed, separated, linear leaves, as much as 3-4 mm. long; or a pair of oblong, concave, foliaceous organs inclosing a pair of shorter linear leaves. In the last case the outer pair of leaves probably represent the capsule and the inner pair the seeds.

SAN BERNARDINO, CALIFORNIA.

Britton's North American Trees *

This large volume is one of the numbers of the American Science Series that is being brought out by the publishers. The purpose of this new series is so commendable that a knowledge of it should be widely disseminated and brought to the attention of the American people generally. It is designed to produce a series of books that will make clear to those unacquainted with nature not only living things but at the same time give them an insight into the significance of their forms, their adaptive features and their relation to the environment. The scope of the series is indicated by such divisions as the following: I. Classification of Nature, II. Functions of Nature, III. Realms of Nature, IV. Working with Nature; V. Man in Nature and Evolution.

The Trees of North America comes under the first division in which group work of a similar character upon fishes, insects, seedless plants, mammals, and birds have already been issued.

In the volume under consideration attention is given to all trees growing independently of planting in North America, north of the West Indies and Mexico. Each species is illustrated by figures showing the important characteristics of the leaves, flowers, and fruit, by which they may be identified. A very considerable number of photogravures has been added to the above-mentioned illustrations showing the general appearance or habit of certain

* Britton, Nathaniel Lord, with the assistance of John Adolph Shafer. North American Trees. Large 8vo. x + 894. f. 1-781. 1908. New York. Henry Holt and Company. \$7.

forms and also often revealing the associations and conditions under which these species live. These photographs for the most part are of exceptional excellence and their reproduction and printing represent the perfection of a most difficult feature of the book-making art. It is a great satisfaction to take up a book in which the details of a photograph have been brought out without recourse to the use of heavy, perishable, and glaring paper. Note should also be made of the line-work figures; especially those illustrating the cone-bearing trees which have been executed with unusual accuracy and skill.

The chief interest in the work is of course centered in the treatment that is accorded the 871 species that make up the body of the text. For clearness and simplicity of statement, for concise and logical presentation, these descriptions and discussions of the North American trees may be well taken as a model by future workers. While the characterization of the forms has been taken up in such a non-technical way as to make the work available to those not trained in botany, this treatment has not resulted in a superficial discussion. The work is thoroughly scientific and the botanist as well as the novice in the subject are alike indebted to the authors for this excellent presentation. The descriptions are very complete, consideration being given not only to the summer and winter appearance of the plant but a great deal of attention is devoted also to the distribution, habitat, and relationship of the native and naturalized trees to those of other countries. Consideration is given also to the physical properties of the wood and to its uses as well as to the various products that are of commercial importance in the arts, sciences, and in various industries. Very timely is the information given regarding the availability of various species for decorative purposes and landscape effects. It is very remarkable that American trees and shrubs have never received the attention in this respect that they deserve. We are constantly confronted in the public parks and private estates with European plants that could often be replaced with advantage by native species. It is encouraging that a few of our horticulturists are realizing the possibilities of this line of work and we feel sure that the North

American Trees will be instrumental in bringing about a wider cultivation of many of our native species.

A very valuable feature of the text that appears quite independent of the descriptions of the plants is the emphasis that is given to the salient and diagnostic characters by which they are readily known. This kind of assistance is of the highest value to the beginner and it would have been greatly appreciated if the features that really identify a form had been emphasized for every troublesome species. Very familiar forms like the red and the gray oak (*Quercus borealis*), the sugar and the black maple (*Acer nigrum*), or the shagbark hickory (*Hicoria ovata*) cause no end of confusion to the beginner owing to their variations. And, after all, how many characters are really used in distinguishing one species from another? A detailed description is of course a necessity but to the mind of the inexperienced it furnishes no distinct picture of the object and consequently a few words to focus his attention upon the most important features are of great assistance.

No one can use the book without experiencing the hope that the authors may put forth a companion work upon the North American shrubs. The need of such a book is constantly brought to the attention of the reader because the authors are often obliged to consider forms that are popularly looked upon as belonging to that imaginary group called shrubs — indeed it is not clear why several forms have been apparently discriminated against and excluded from a place in the book, especially some of the species occurring in the alder, wax-myrtle, cornel, elderberry, and viburnum genera. Probably because it is impossible to draw the line between trees and shrubs. Abridged, pocket editions of these books, somewhat after the plan of the little German guide-books, would meet a long felt want and would be immensely popular. Complaints are often heard of the lack of interest in botany in the United States, but we never stop to consider how little has been done for those who are not somewhat familiar with the subject. The great majority of the books upon botany are of no service to the untrained and this applies to many of the so-called popular works, owing to their fragmentary

and empirical character. A series of small books upon the trees, shrubs, and herbaceous plants, and upon the ferns, mosses, hepatics, fungi, lichens, etc., would be of the greatest service in arousing interest in botany and do more to further its advancement, we believe, than is being accomplished to-day by the schools and numerous publications.

The number of tropical and subtropical trees occurring within the range covered by the book is remarkable. These forms are becoming somewhat familiar to us through their cultivation in greenhouses and their utilization in other ways; and it is indeed a great service to make their identification and interesting features readily accessible. Several desirable changes have been made in the scientific and common names; mention may be made by way of illustration of the substitution of *Magnolia grandiflora* for *M. foetida* and of the separation of the flowering dogwoods, under the generic name, *Cynoxylon*, from the cornels. Whatever may be the laws governing such matters it will be a satisfaction to use an appropriate name for the attractive and fragrant great laurel magnolia and to give generic rank to so distinctive forms as our dogwoods.

The book is provided with a complete index and glossary, and an excellent series of keys, running the forms out to families, genera, and species. These features are of great service and will widely extend its usefulness and make it indispensable as a work of reference.

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PROCEEDINGS OF THE CLUB

APRIL 29, 1908

The meeting was called to order at 3:45 P. M. by Vice-president John Hendley Barnhart. Fourteen persons were present.

The following abstracts were submitted by the authors of the papers presented:

“The Boleti of the Frost Herbarium,” by Dr. William Alphonso Murrill.